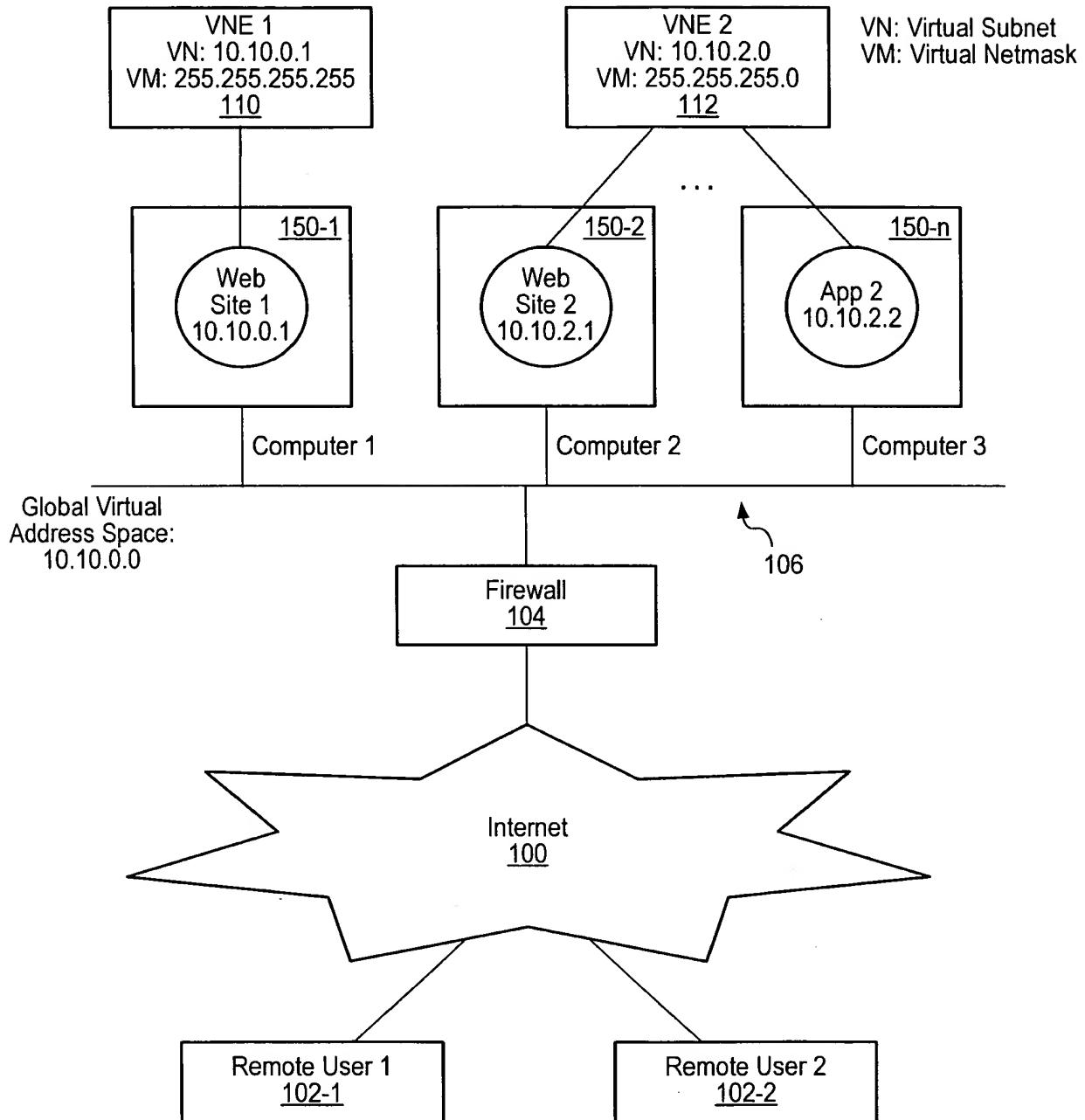


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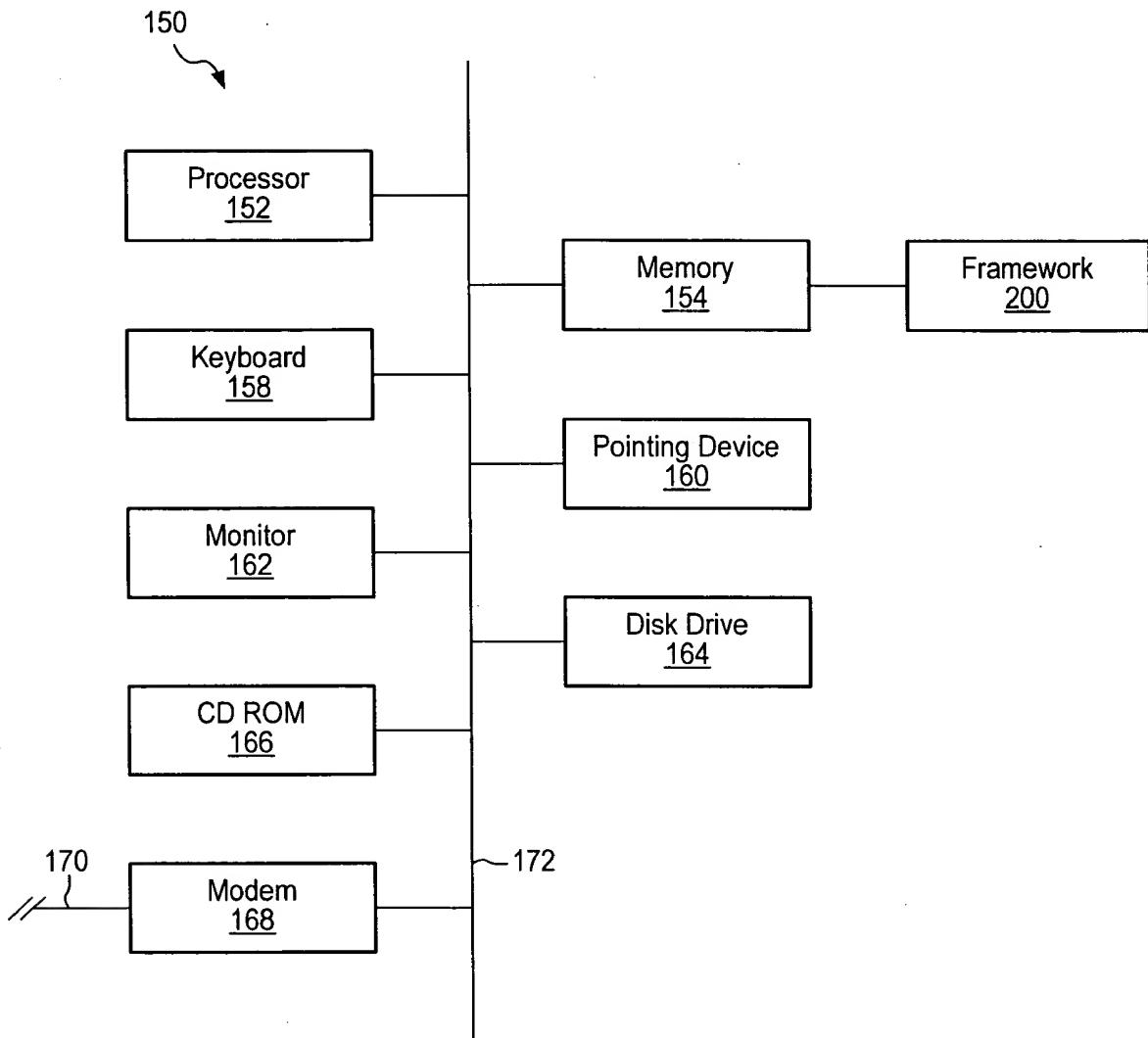


The above diagram illustrates the virtual network environments. Virtual Network Environment 1 contains one application WEB SITE 1, is defined by the Virtual Network Address 10.10.0.1 resides solely on computer 1. Virtual Network Environment 2 contains two applications, WEB SITE 2 and APP 2, and spans two computers, Computer 2 and Computer 3. The virtual network of VNE 2 is 10.10.2.0.

*Fig. 1*

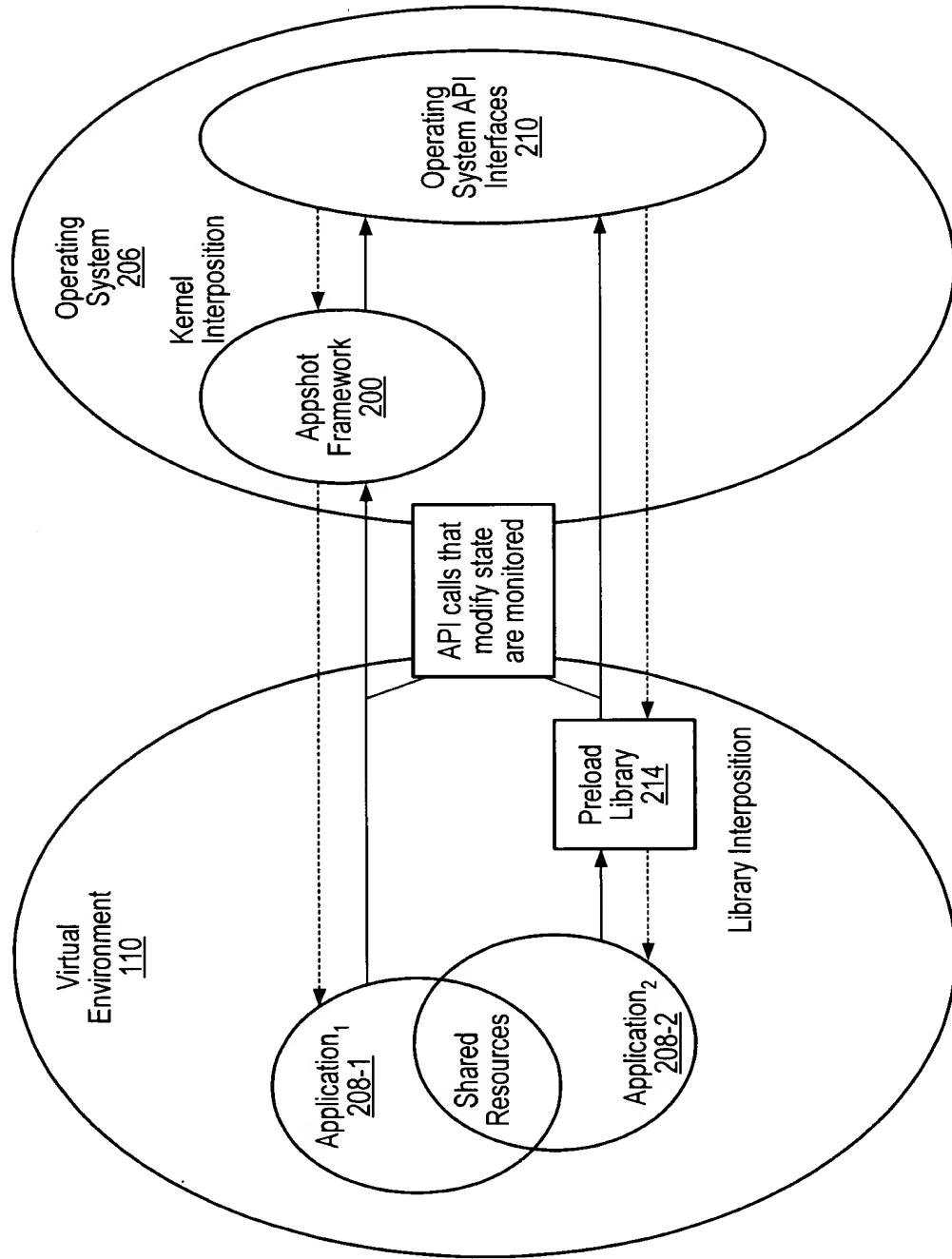
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*Fig. 2*

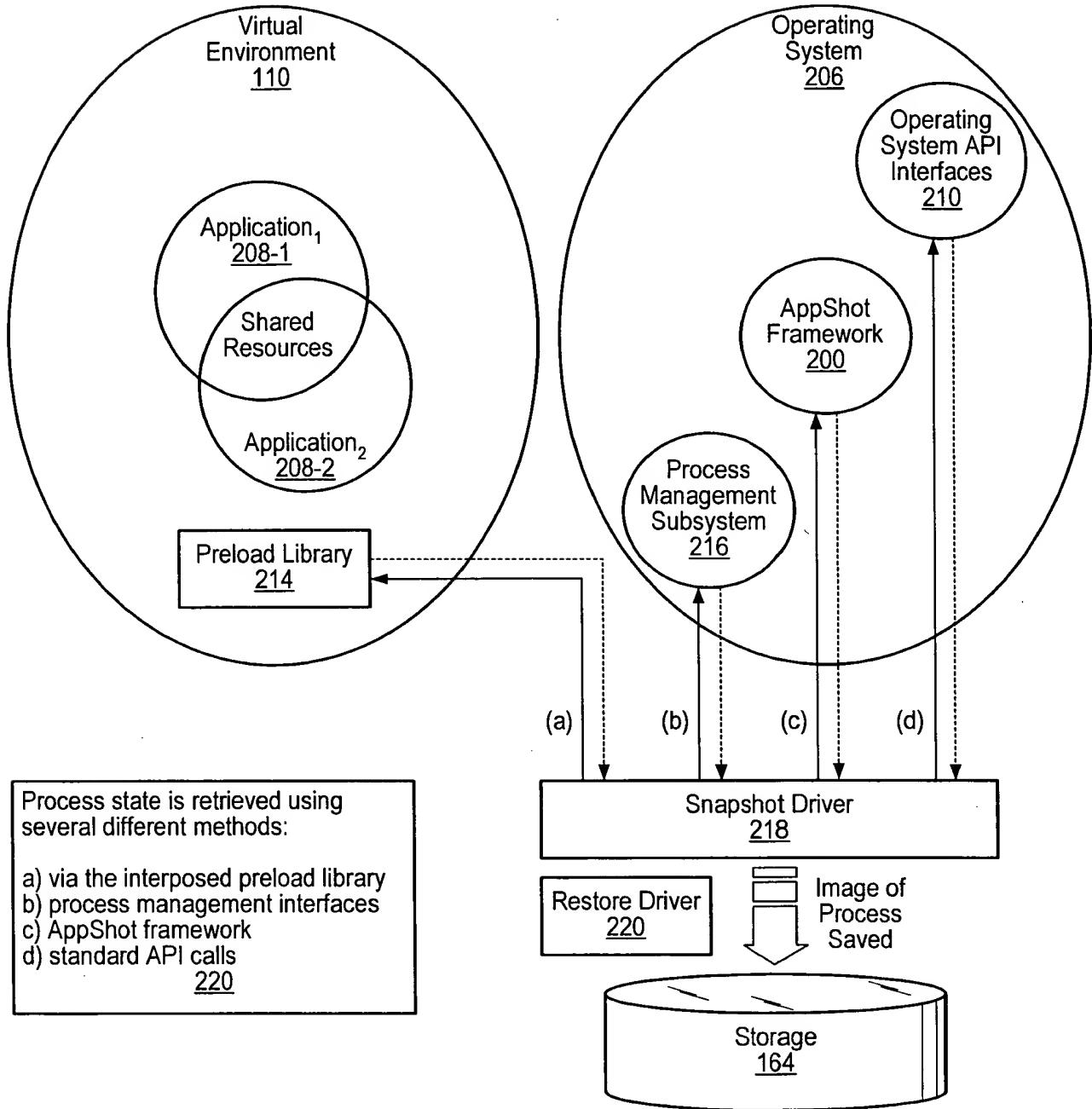
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*Fig. 3*

Tracking application state via library and kernel interposition.

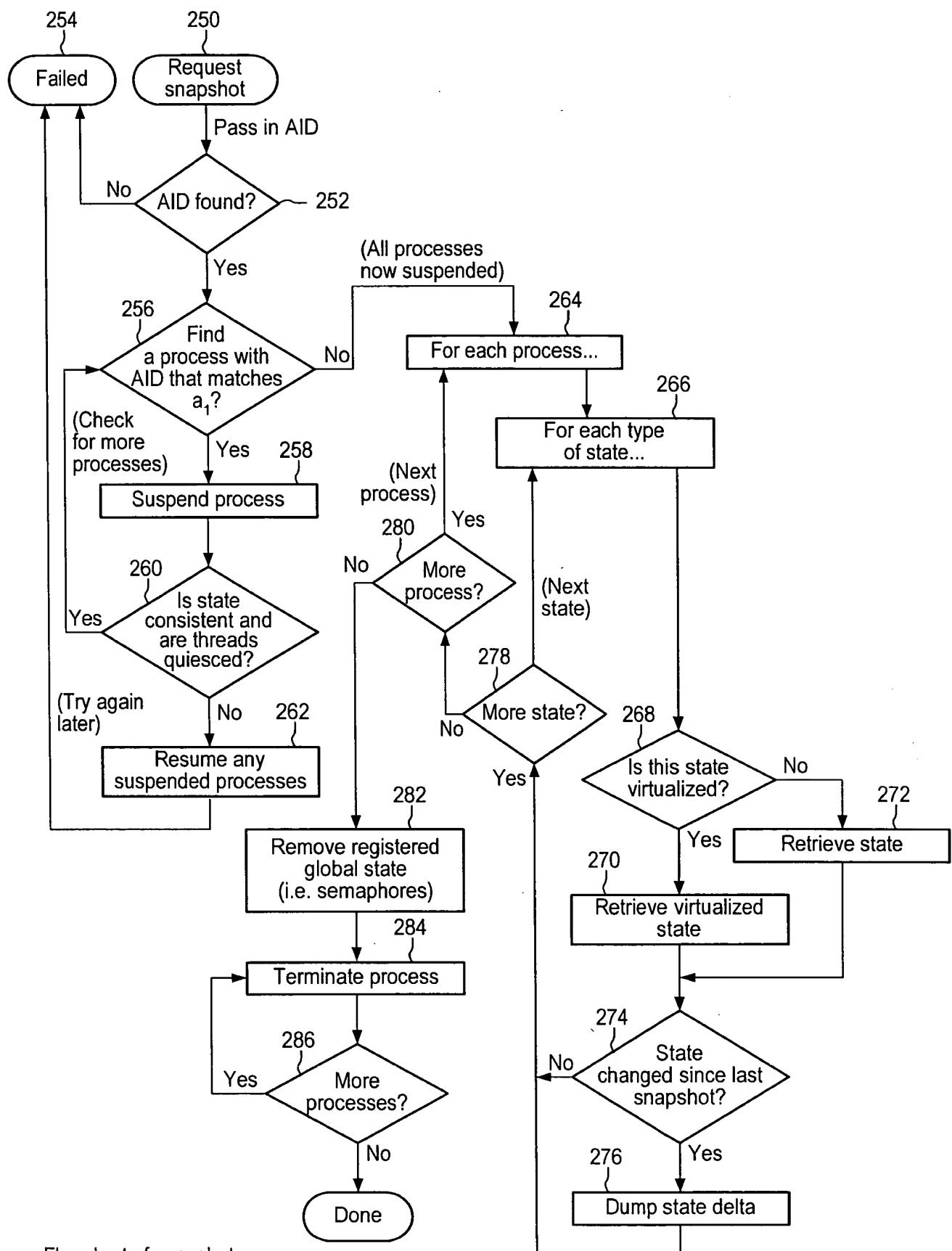
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Capture of an application's run-time state.

*Fig. 4*

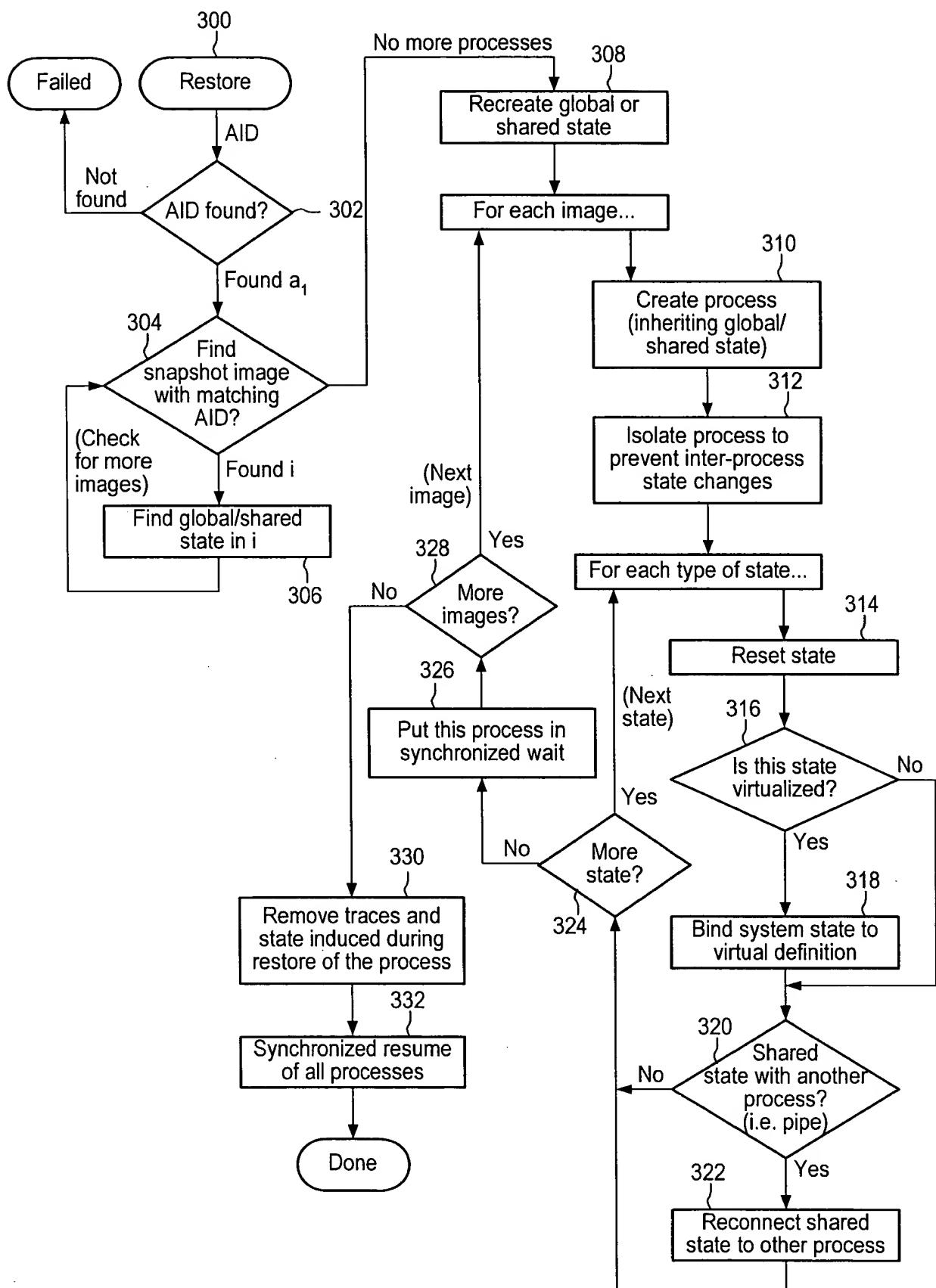
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Flowchart of snapshot.

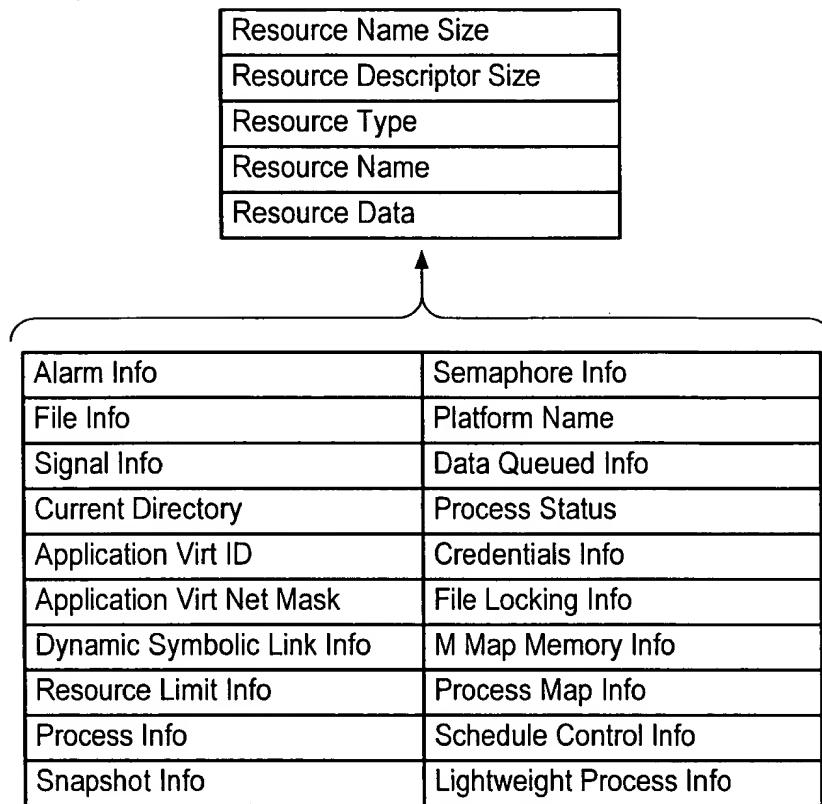
*Fig. 5*

## Replacement Sheet



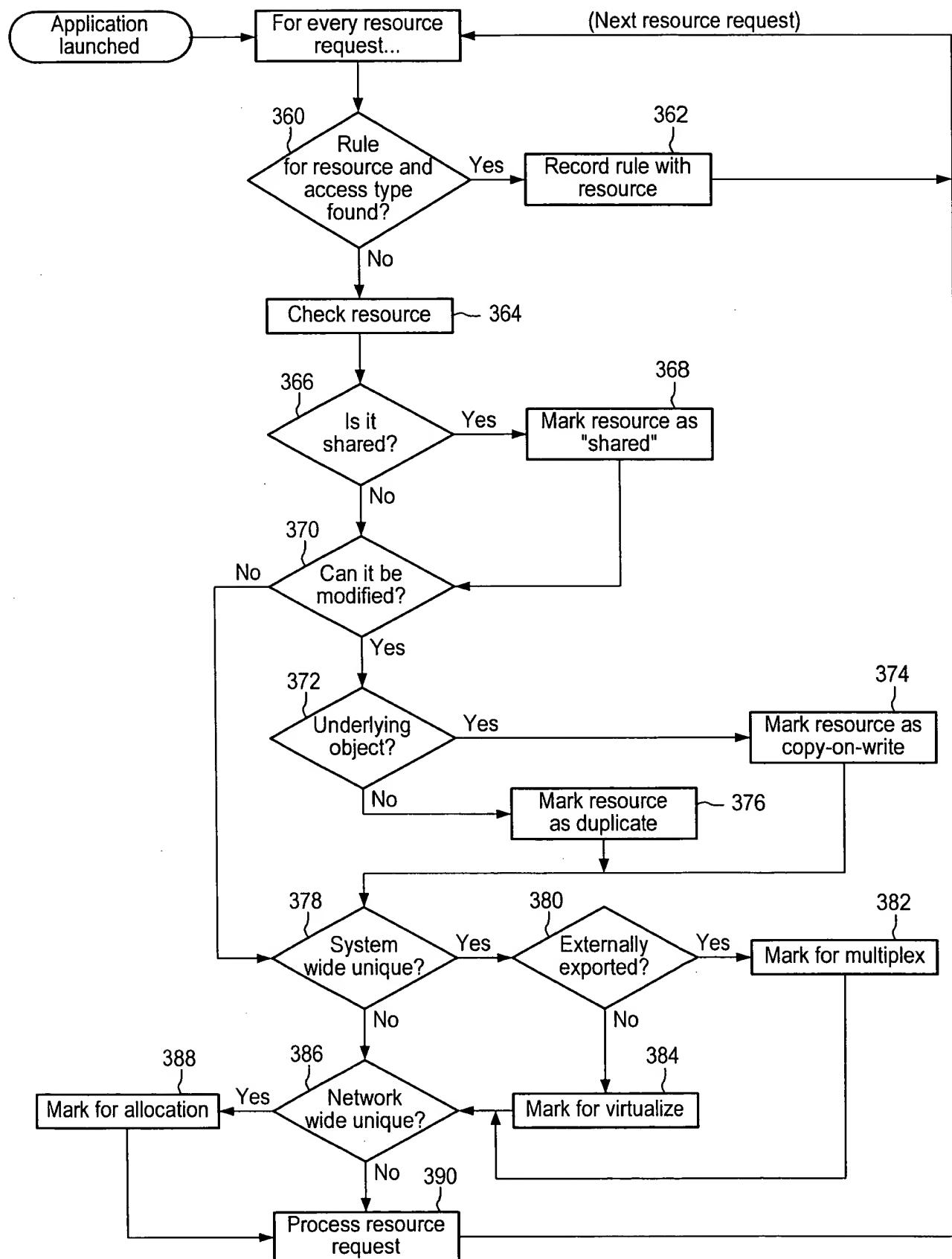
*Fig. 6*

## *Replacement Sheet*



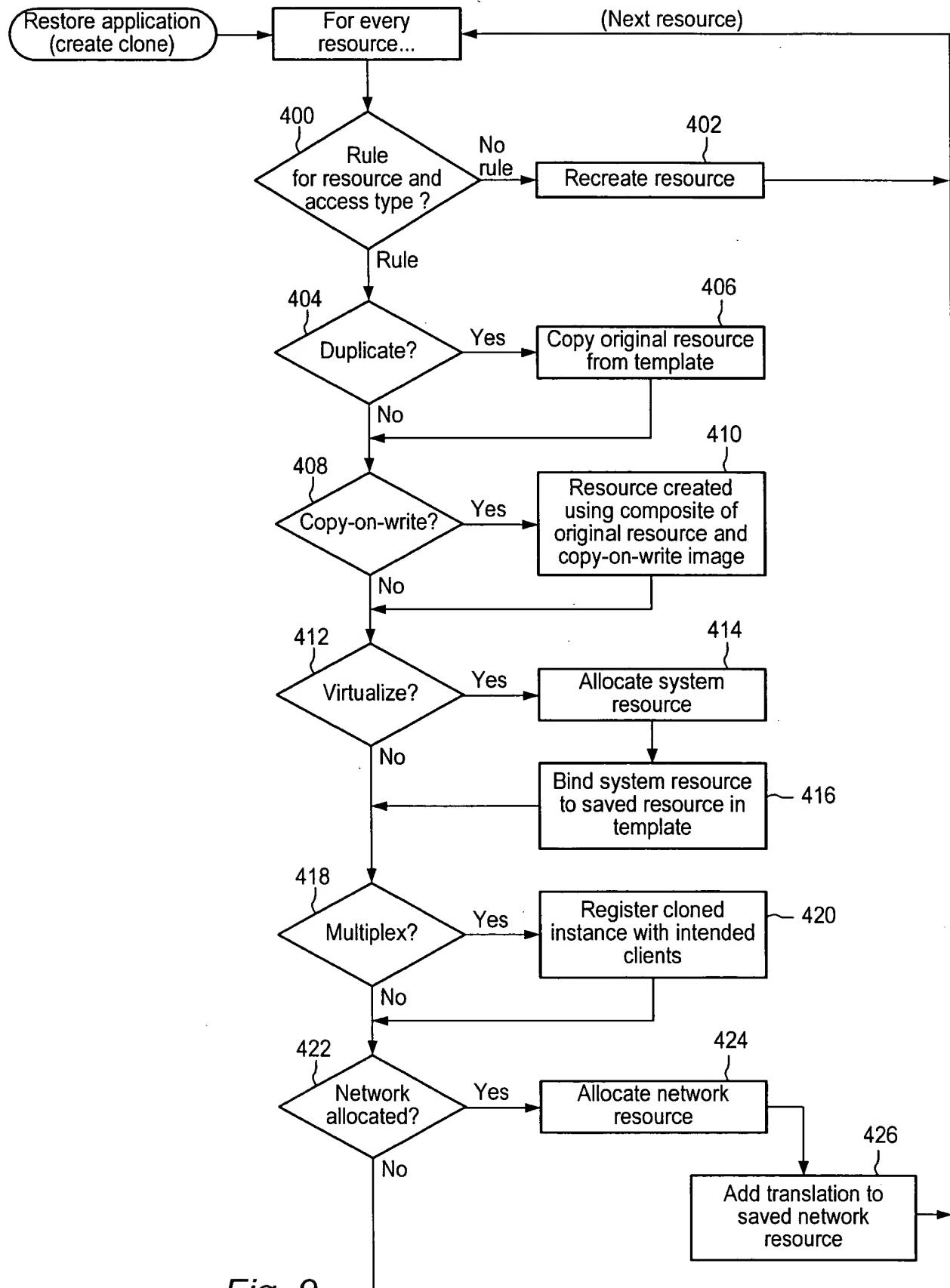
*Fig. 7*

## Replacement Sheet



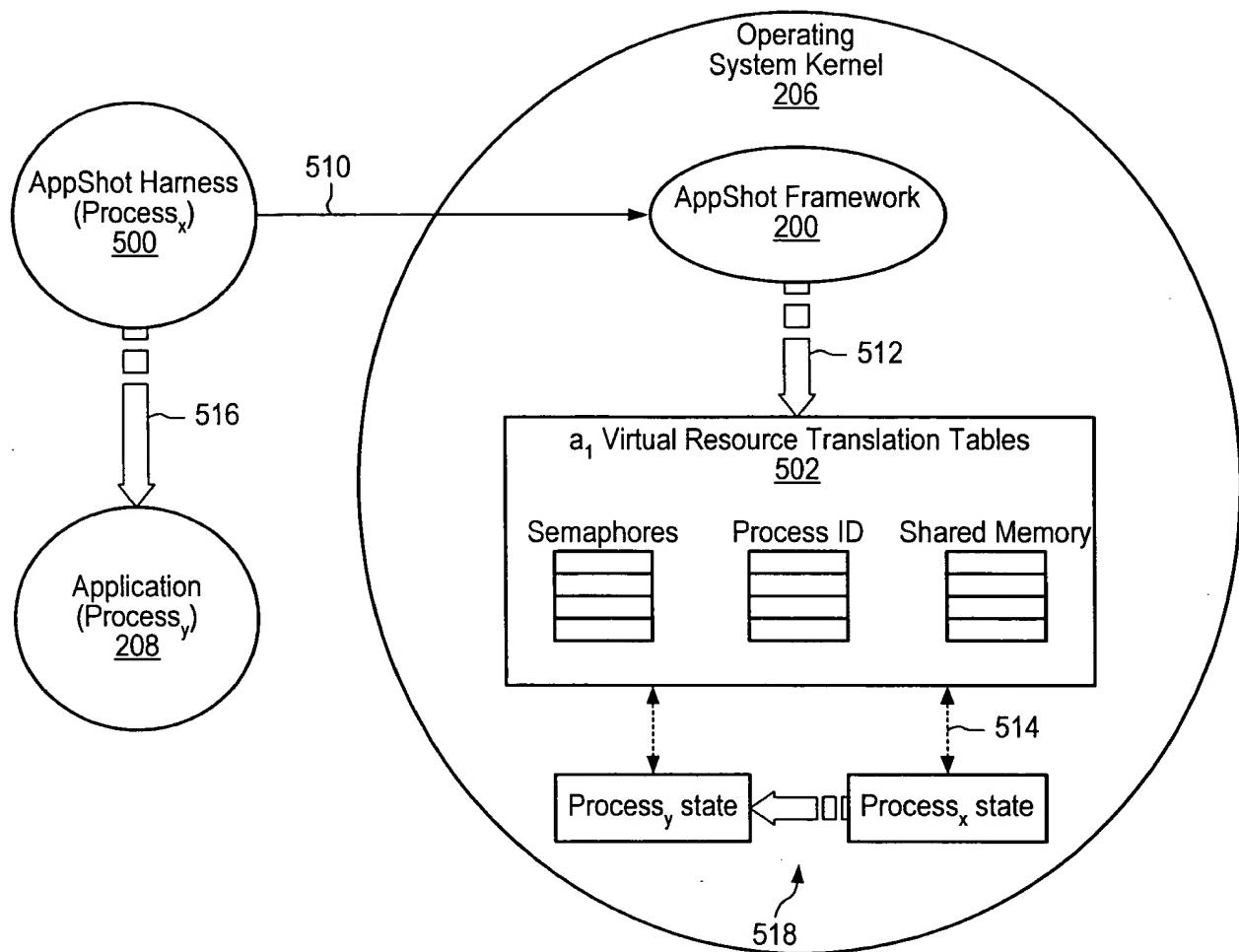
*Fig. 8*

## Replacement Sheet



*Fig. 9*

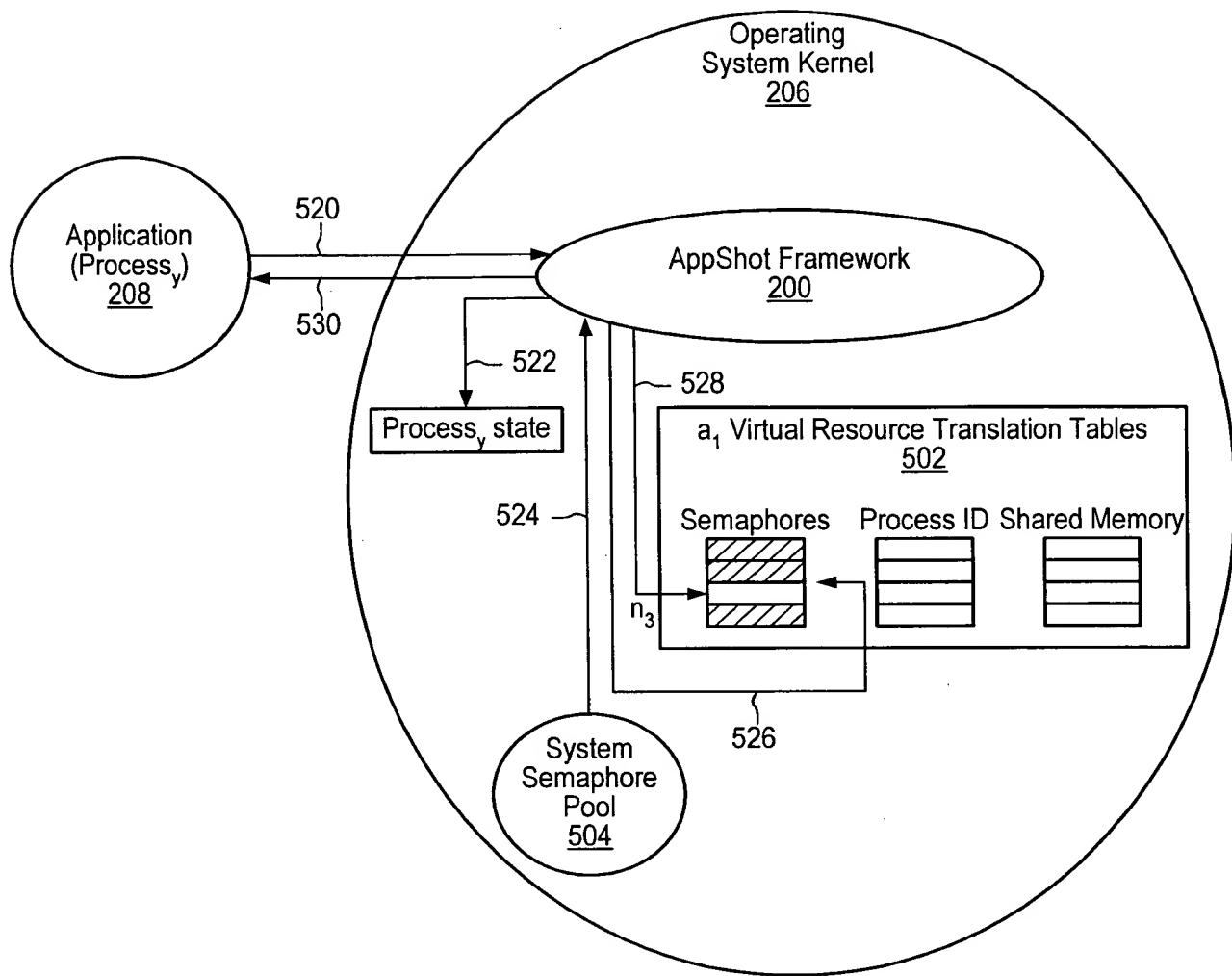
*Replacement Sheet*



Registration of an application using virtual resource ID's

*Fig. 10*

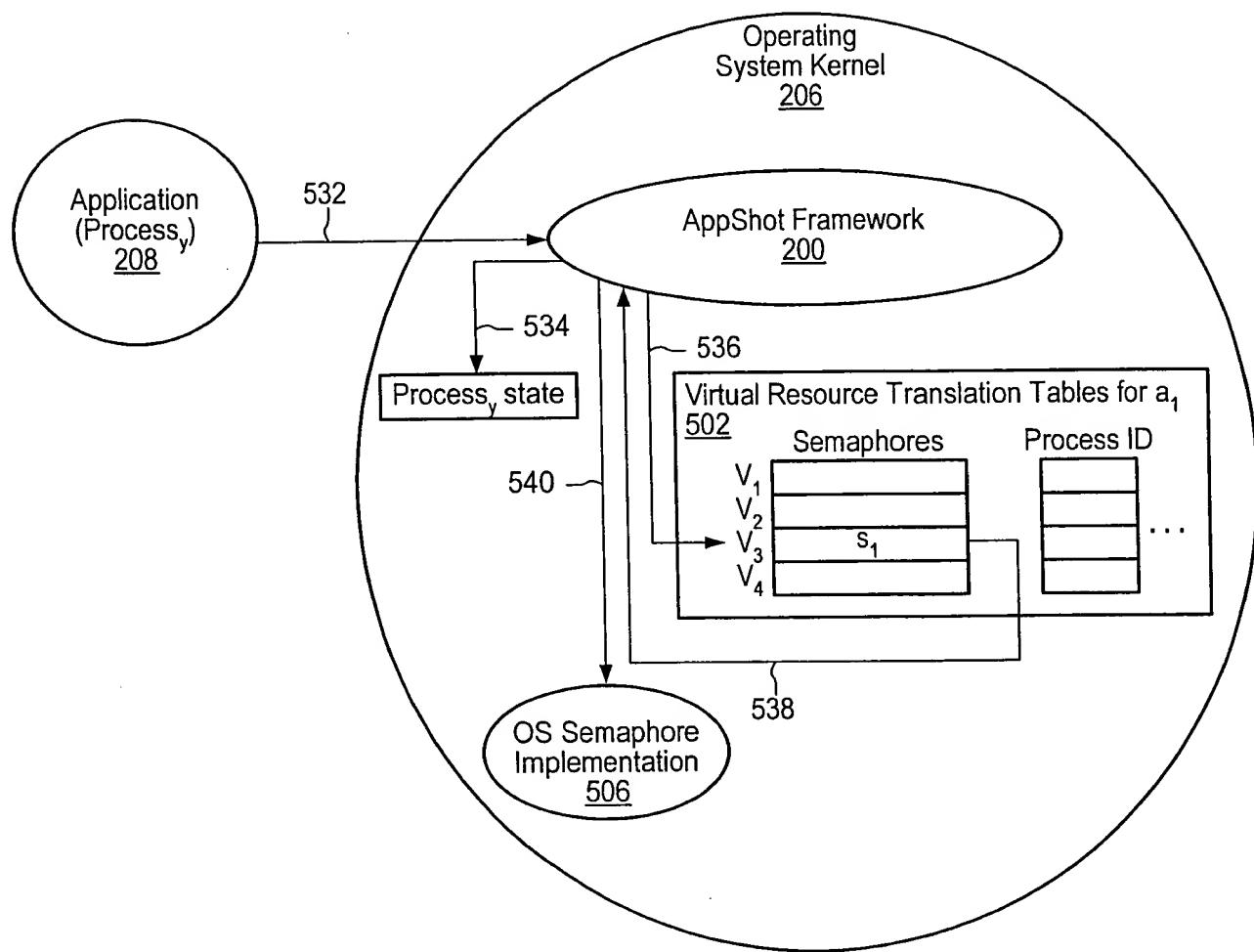
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Allocation of a virtual resource (i.e. semaphore)

*Fig. 11*

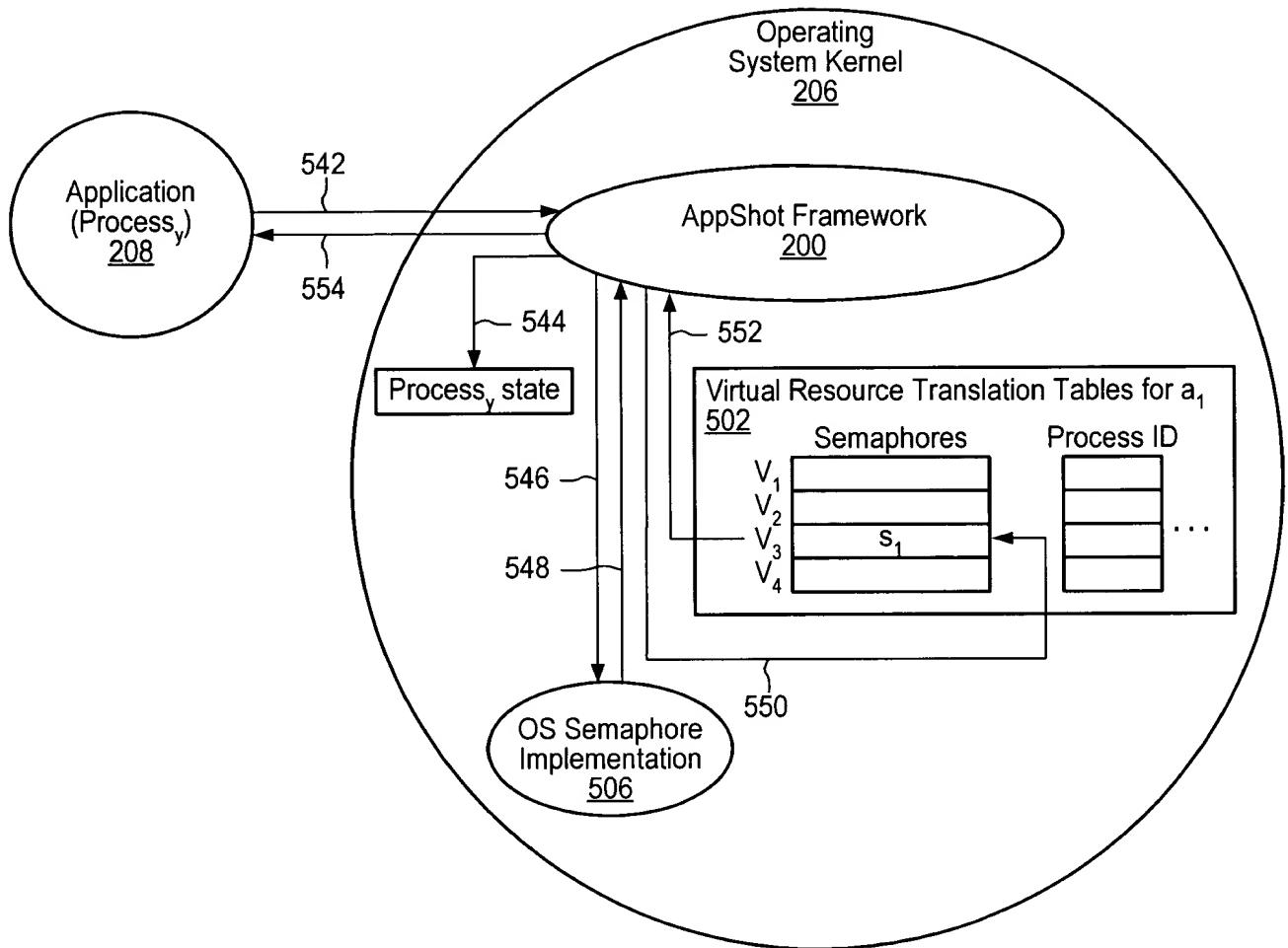
## *Replacement Sheet*



Translation of a virtual resource (i.e. semaphore), virtual to system

*Fig. 12*

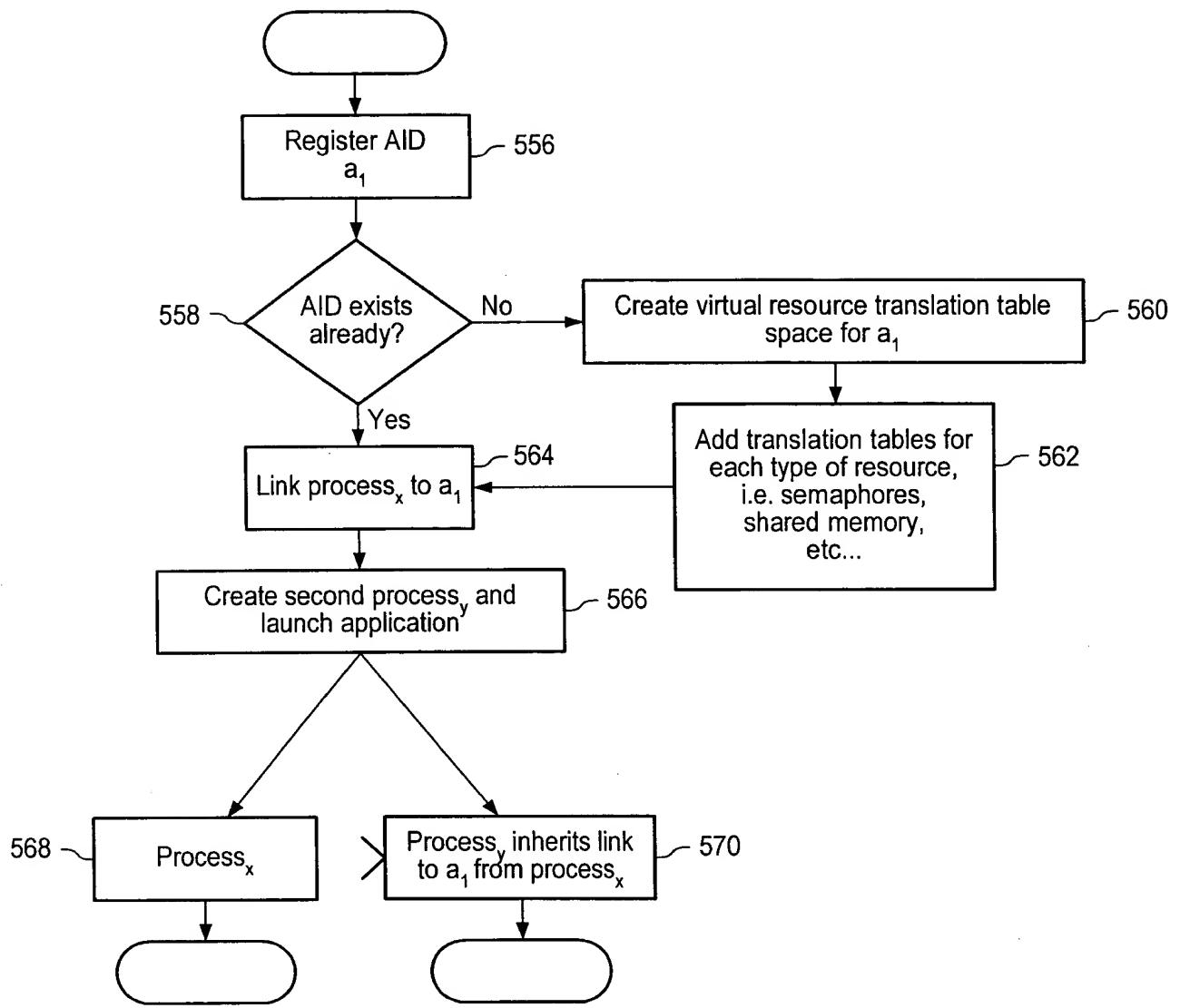
## *Replacement Sheet*



Reverse Translation of a virtual resource (i.e. semaphore), system to virtual

*Fig. 13*

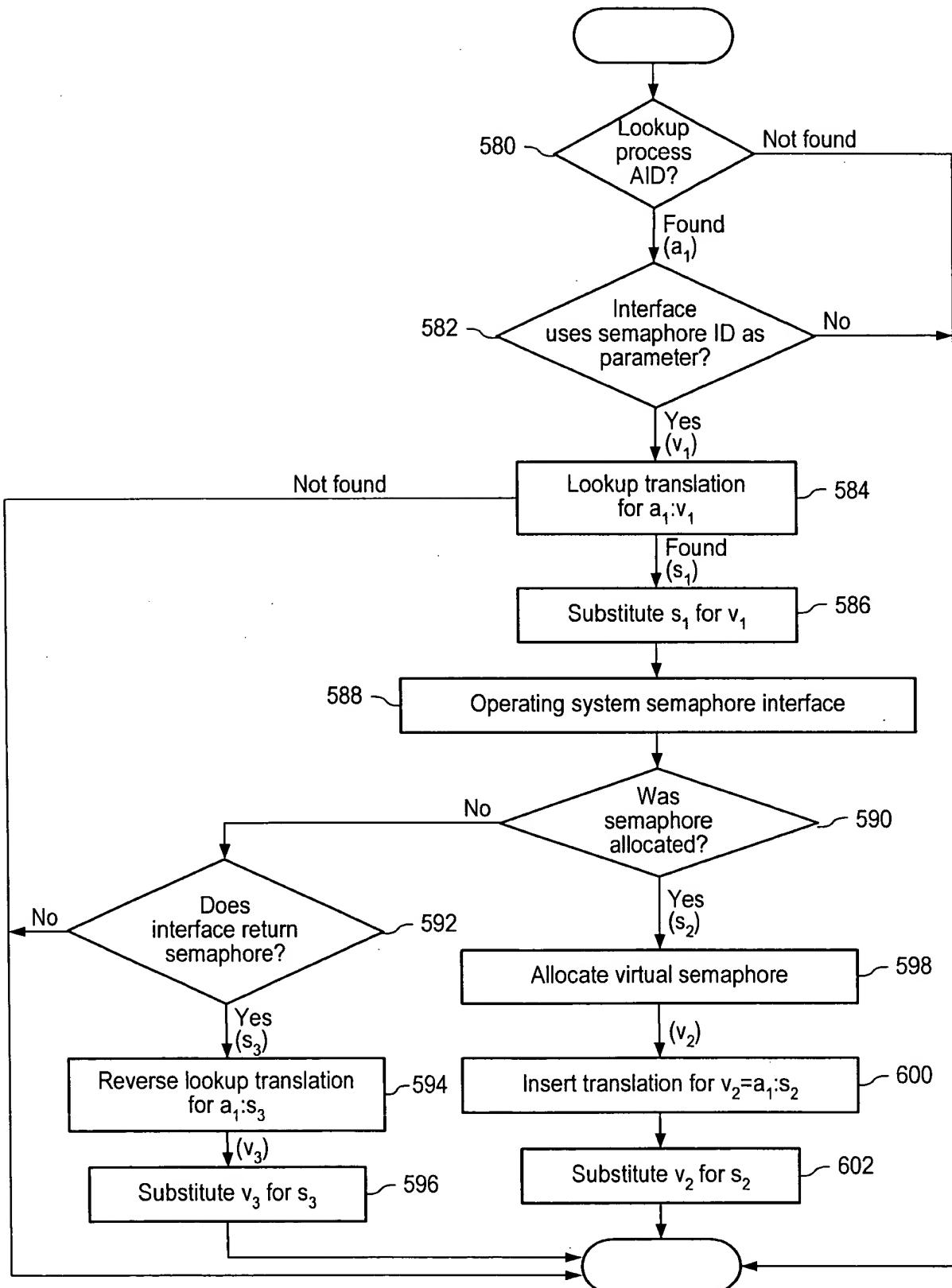
## Replacement Sheet



Flowchart describing creation of virtual translation tables

*Fig. 14*

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Flowchart depicting translation of a virtual resource (i.e. semaphore)

*Fig. 15*

*Replacement Sheet*

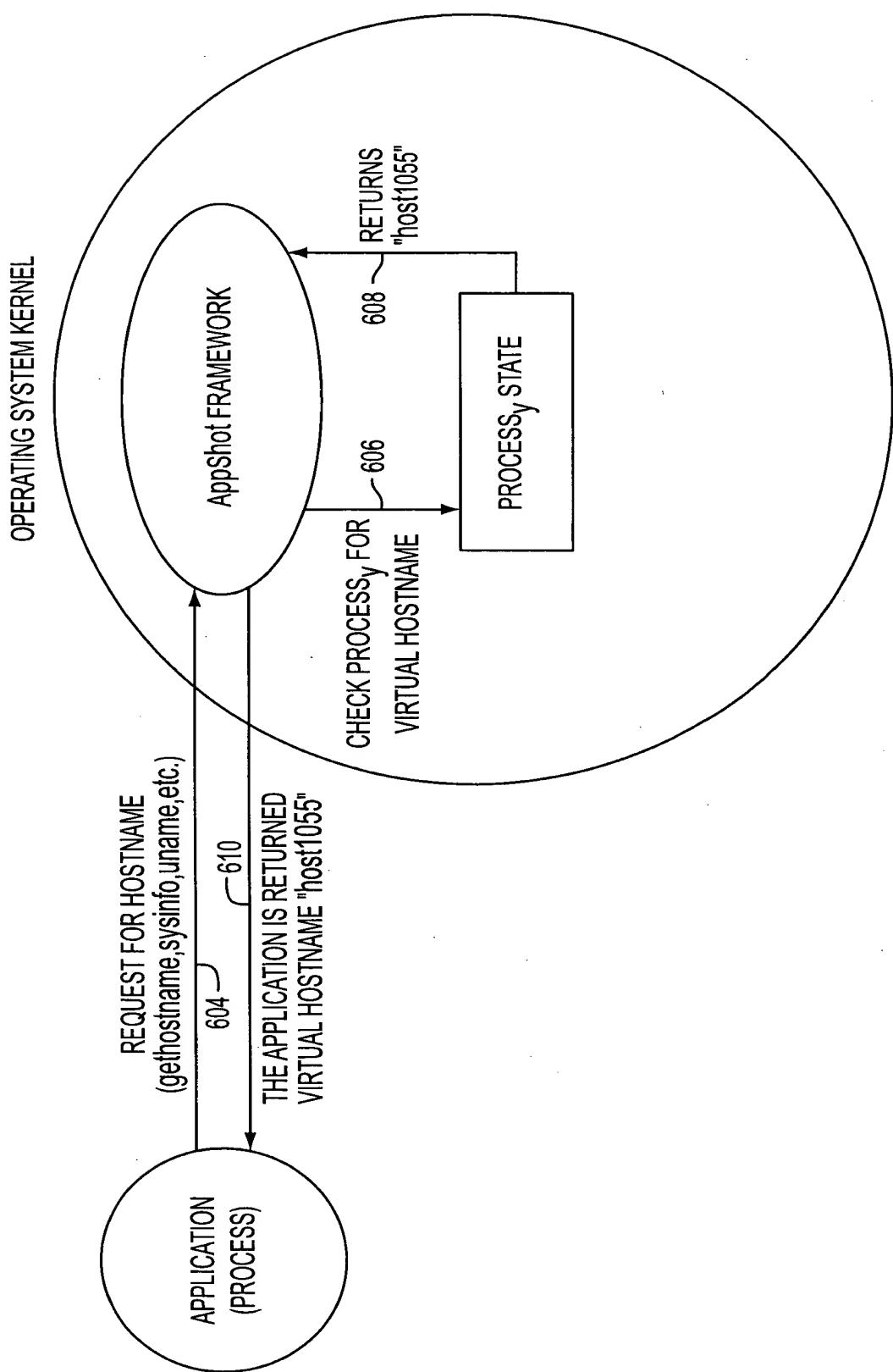


FIG. 16

*Replacement Sheet*

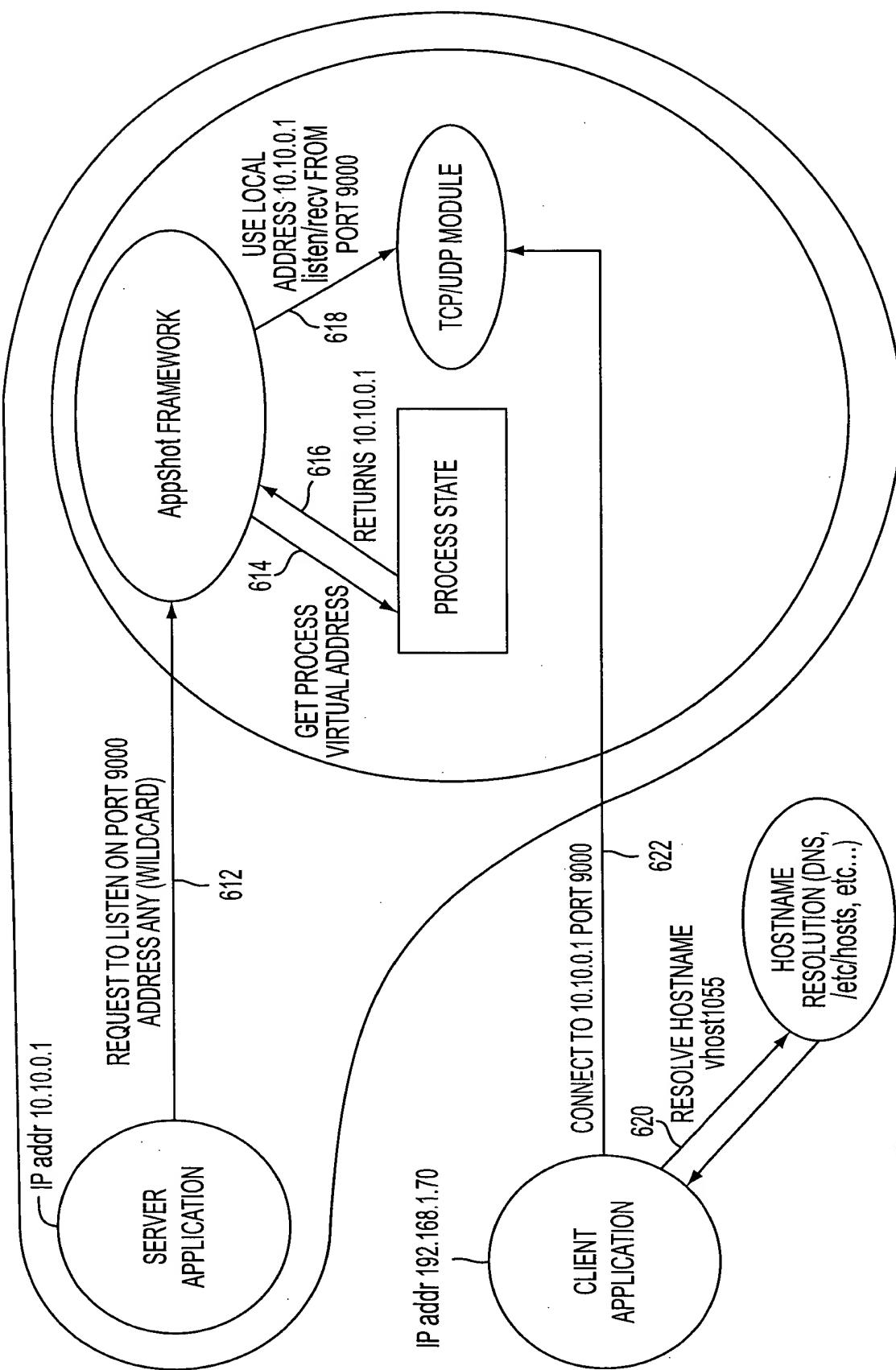


FIG. 17

*Replacement Sheet*

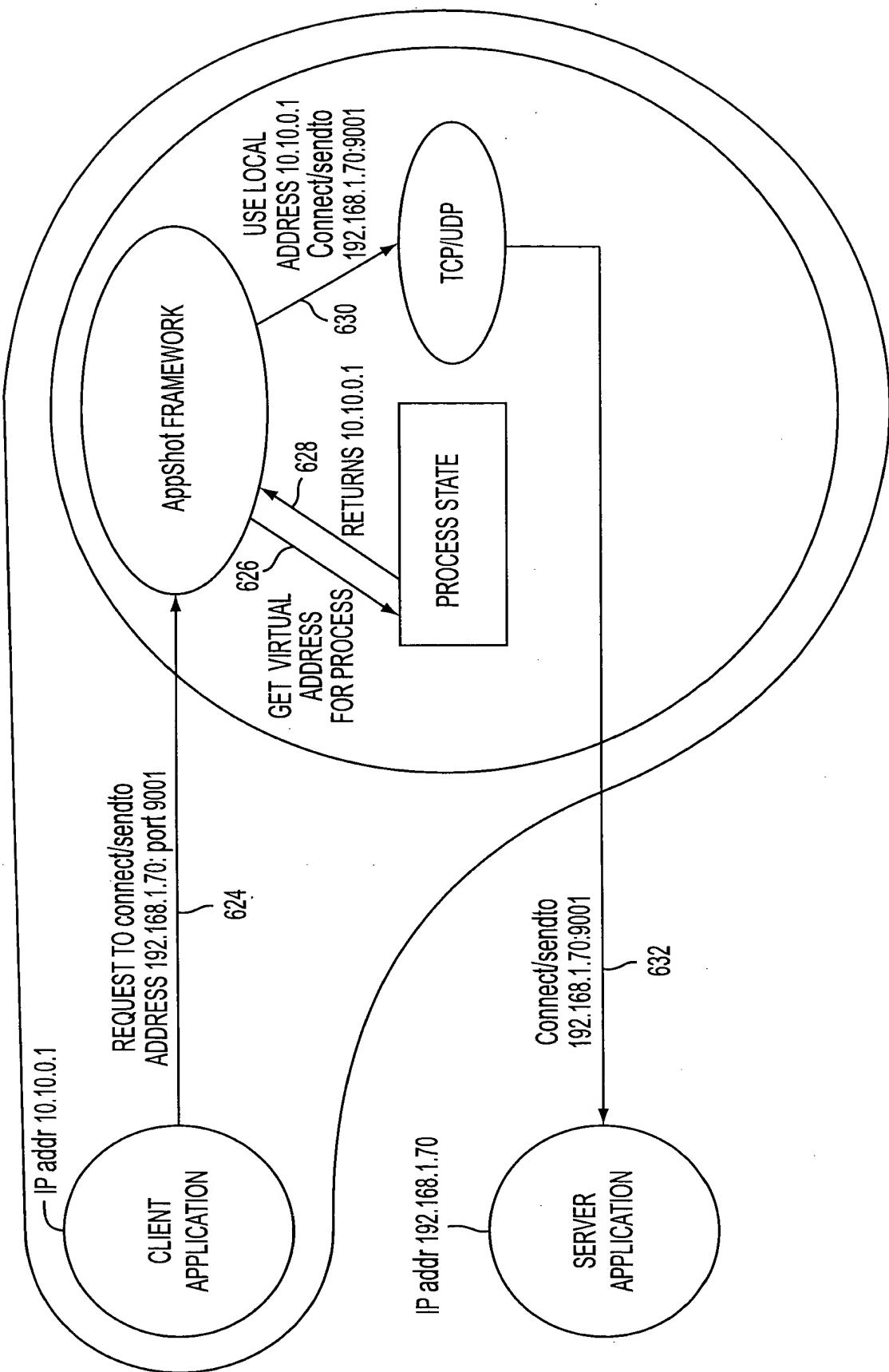


FIG. 18